Or

4. What is photorespiration. Describe the mechanism of photorespiration with reactions. Add a note on metabolic significance of photorespiration. 1+5=6

5. (a) Add a note on phloem loading and unloading of photosynthate with suitable model. 6

   (b) Write the differences between symplastic and apoplastic transport. 4

Or

6. (a) Discuss the process of modulation and nitrogen fixation in legumes. Add a short note on nif gene. 7+3=10

7. (a) With suitable diagram describe the different structure of protein. 5

   (b) Explain the post-translational modification of proteins. 5

8. Describe the kinetics of enzyme action and explain their regulation of enzyme activity. 5+5=10

9. Write short notes on : 5x2=10

   (i) Plant senescense and fruit ripening

   (ii) Photoperiodism

Or

10. Describe the physiological role and mechanism of action of auxin. 10

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UG (CBCS) EVEN SEMESTER EXAMINATION, 2023

EDUCATION (B.Sc. B.Ed.)

BOTANY (HONOURS)

4th Semester

Course No. : BSBH - 401

(Plant Physiology and Biochemistry)

Full Marks : 50

Pass Marks : 20

Time : 2 hours

The figures in the margin indicate full marks for the questions

1. (a) Discuss the theories of Ascent of Sap with suitable model. 5

   (b) Explain the factors that affect the rate of transpiration. 5

Or

2. (a) What is mineral nutrition? What do you mean by micro and macro elements? 2+3=5

   (b) Write the deficiency symptoms and physiological role of suffer and manganese. 5

3. (a) Briefly describe non-cyclic photo phosphorylation with schematic model. 5

   (b) Differentiate between photosystem I and photosystem II. 5